REMARKS

In the Office Action mailed on April 18, 2007, the Examiner rejected claims 1-5, 8-11, 16-22 and 27 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,289,476 to Johnson et al.; rejected claims 6 and 7 under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. in view of U.S. Patent No. 7,095,274 to Lopez Villegas and U.S. Patent Publication No. 2002/0186786 to Seo and rejected claims 12-15 and 23-26 under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. in view of U.S. Patent No. 5,822,384 to Thebault et al.

In response, Applicant has amended claims 11, 13-15, 22 and 24-26 and cancelled claims 12 and 23. No new matter has been added.

In rejecting claims 1 and 16, the Examiner asserts that Johnson et al. teaches performing a sync word search that includes "both a lower order modulation detection and correlation process, and a higher order modulation detection and correlation process," (emphasis added) in column 8, lines 29-41. This is not true.

What Johnson et al. teach in column 8, lines 29-41 is searching for a fixed code in the preamble of every packet. That code then instructs the receiver to decode the remaining portion of the packet using either BPSK or QPSK. (Emphasis added). Thus, Johnson et al. teach decoding a first portion of the packet using BPSK and decoding a second portion of the packet using either BPSK or QPSK. Nowhere does Johnson et al. describe processing the same portion of the packet using both BPSK and QPSK.

Claims 1 and 16 recite performing a sync word search using two different orders of modulation detection and correlation. Thus, the same data is processed using BOTH different orders of modulation and correlation. Since Johnson et al. do not describe

processing the same data using both a higher order of modulation detection and

correlation and a lower order of modulation and correlation, it follows that Johnson et al.

cannot anticipate claims 1 and 16.

In addition, Johnson et al. describe inserting the "fixed code" after carrier

synchronization and bit synchronization. Thus the data in Johnson et al.'s packets that

deal with synchronization are always modulated using BPSK. See Johnson et al.; column

3, lines 9-16. QPSK is never applied or used on Johnson et al.'s carrier synchronization

or bit synchronization.   In contrast, claims 1 and 16 perform a "sync word search" using

both a lower order modulation detection and correlation process and a higher order

modulation detection and correlation process. To the extent the Examiner is equating the

claimed "sync" word with Johnson et al.'s carrier synchronization data and bit

synchronization (preamble) data, Johnson et al. cannot anticipate claims 1 and 16 because

Johnson et al.'s carrier synchronization data and bit synchronization data are ONLY

modulated using BPSK. Two different orders of modulation detection and correlation are

not performed on Johnson et al.'s carrier synchronization and bit synchronization data.

With respect to claims 4, 5 and 18, the Examiner asserts that the limitations

therein are taught by Johnson et al. in column 10, lines 55-63. Applicant disagrees. The

words "modify," or "supersedes," or their equivalents, are not used in Johnson et al.'s

column 10, lines 55-63. As stated earlier, Johnson et al. uses either BPSK or QPSK on

certain portions of a packet. Nowhere do Johnson et al. use the results of QPSK

demodulation to modify or supersede the results of BPSK demodulation, or vice versa.

Since the BPSK and QPSK demodulation processes of Johnson et al. are independent of

each other, it follows that Johnson et al. cannot anticipate claims 4 or 5.

With respect to claims 6 and 7, the Examiner has used a reference that is not prior art to the present application. Specifically, the Examiner cites to column 1, lines 24-25 of Lopez Villegas et al. Patent No. 7,095,274 for the proposition that using DBPSK avoids mutual locking over using BPSK. The filing date of the '274 patent is August 8, 2005, which is more than one year after the filing date of the present application.

The '274 patent claims priority to and is a continuation-in-part of U.S. Patent No. 6,975,165. However, a review of column 1, lines 10-13 of the '165 patent shows that the objective cited by the Examiner in the '274 patent is not in the '165 patent. It therefore follows that this objective was added to the '274 patent application AFTER the filing date of the '165 patent, which is September 15, 2004. It therefore follows that this portion of the '274 patent is not prior art to the present application and cannot be used in rejecting the present claims.

With respect to amended claims 11 and 22, the Examiner asserts that Thebault et al. teach "signaling a valid burst detection" in column 4, lines 8-17. This is incorrect. Instead, Thebault et al. teach a process that achieves synchronization in line 17 of column 4. As stated in paragraph [0030] of the present application, burst detection and synchronization are two different things. Specifically, burst detection identifies likely QPSK signals while sync word acquisition is responsible for the burst/frame timing of the packet. Thus, burst detection and synchronization are two different things. Since Thebault et al. teach synchronization and not burst detection, it follows that the combination of Johnson et al. and Thebault et al. do not teach all of the limitations of amended claims 11 and 22.

With respect to claims 15 and 26, Thebault et al. do not describe do any process with relation to an expected burst duration. Indeed, Thebault et al. do not even use the words "burst" or "packet" anywhere in his patent. Thebault et al. do not teach the limitations of claims 15 and 26.

Any claims not specifically mentioned above are allowable due to their dependence on an allowed base claim.

CONCLUSION

No fees are due for this response. However, the Office is authorized to charge

any additional fees or underpayments of fees (including fees for petitions for extensions

of time) under 37 C.F.R. 1.16 and 1.17 to account number 502117. Any overpayments

should be credited to the same account.

Applicant respectfully requests reconsideration of the present application,

withdrawal of the rejections made in the last Office Action and the issuance of a Notice

of Allowance. The Applicant's representative can be reached at the below telephone

number if the Examiner has any questions.

Respectfully submitted,

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